ADVANCED TECHNOLOGIES FOR ALL INDUSTRIES
APIS MASCHINENBAU GMBH

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Operating Instructions for "Lost Head" Cutting Unit with Leak Detector AP-WHS-01

Dear Customer,

We thank you for your confidence in our product.
Please read these operating instructions before using the appliance to facilitate start-up and operation of the unit.
If you have any questions, our APIS Team is available at any time.
Our address is:

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Technical Data

Mach. Type:	**AP-WHS-01**
Mach. No.:	
Year of production:	
Compressed air connection:	**2 – 8 bars**
Electrical power connection:	**230V AC / 16A**

Table of Contents

1. Functional Description
2. Start-up
3. Care and Maintenance
4. Safety Precautions

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1. Functional Description

The AP-LF-01/V unit serves for cutting off lost heads and subsequent leakage test.

The items are transferred from the conveyer belt to the feed belt for cutting and then transported on to the cutting unit.

Guided by the lateral guide the specially shaped lost head engages in the guide channel and the drive belt for the cutting device.
The bottle rises slightly from the conveyer belt and rotates along the heated cutting blade where it is cut.
After cutting off, the head is fed to the waste bin.
The bottle falls back onto the belt and is transferred to the leak testing belt in an upright position.

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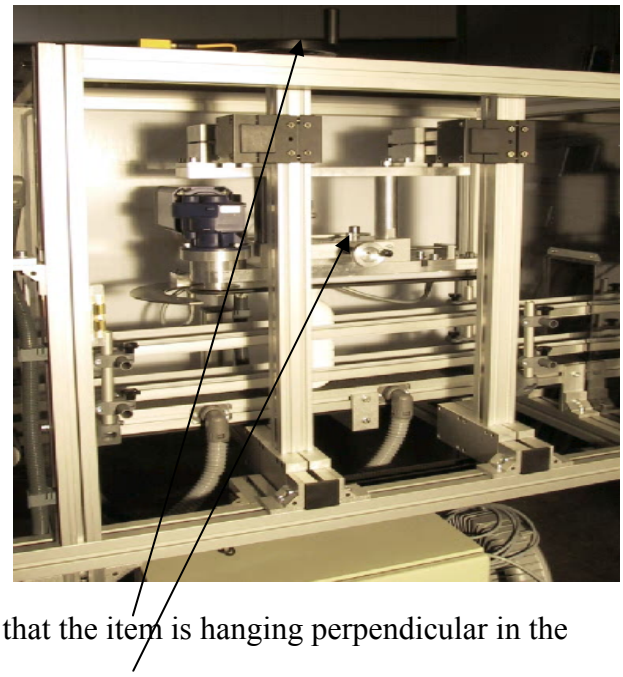
2. Start-up

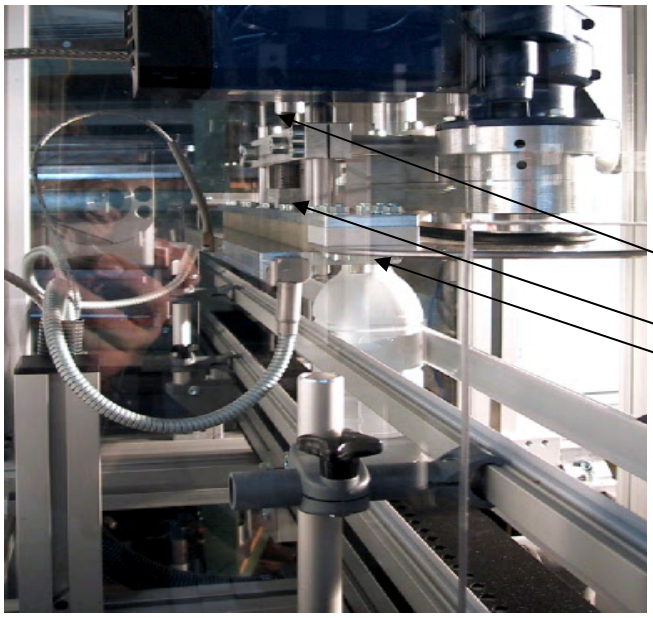
2.1 Mechanical Stage

Position the unit on the feed belt and adjust the height with the infinite hydraulic adjustment. Complete the power connection.

2.1.1. Take an item to be processed and place it on the cutting belt. Loosen the mount on the lateral guide and slide it against the item so that a gap of approx. 1-2mm remains on each side. Ensure that the item is not blocked at any point by the lateral guide (please observe diagonals on rectangular bottles). As a rule the height of the lateral guide should be adjusted so that the railing is positioned in the middle of the item.



2.1.2. Adjust the cutting device to the height of the item with the aid of the spindle adjustment. Adjust the cutting guide to the diameter of the lost head and ensure that the item is hanging perpendicular in the machine.



For this purpose loosen the clamping screws on each of the clamping blocks and correct the position with the appropriate spindle. After correcting the adjustment please retighten the clamping screws.

The guide and drive belt can be adjusted with the spindle adjustment!
Adjust blade to cutting edge with the M8 clamping screws on blade block and appropriate intermediate position with feeler gauge (0.8±0.2mm) between blade mount and groove guide.

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2.1.3. Now adjust the plug to the cut item to be tested. Position the item below the plug. Adjust the height of the plug units so that the bottom of the sealing plate is approx. 10-30 mm above the neck of the bottle when the plug cylinder is retracted.

After adjusting the height, adjust the plug so that it is centered above the opening in the item.

2.1.4. Now adjust the light barrier for positioning the item in the test position. **"Light barrier“ 4B2** is responsible for positioning the item in the test position. The light barrier must be positioned so that the feed belt stops when the item is centered below the plug cylinder.

2.1.5. **"Light barrier" 4B3** should be offset by the width of the bottle, to give the reject signal for leaky items. Adjust the eject nozzle to the same interval in the lower third of the bottle.

2.1.6. **"Light barrier“ 5B2** is responsible for recognition of items in a prone position. This is located below the eject cylinder. (Optional)

2.1.7. It is necessary to take the belt speed into consideration for all adjustments. Allow the cutting belt to run slightly faster than the feed belt, so that the bottles arrive at the cutting station with a slight interval in between. This, on the other hand, must be matched to the speed on the cutting belt. Adjust the speeds using the frequency converters in the left switch cabinet.

2.1.8. The blade can be heated for easier, fuzz-free cutting. The heater can be switched on and off separately on the switch cabinet. Set the temperature of the blade on the heater control using the arrow keys.

2.1.9. The speed of the belt on the leak detector can be set with the keypad on the display. Follow the instructions for the leak detector.

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2.2 Operation

Switch on the unit with the main switch. Switch on the drives for the cutting device and the blade heater on the left switch cabinet.
The feed belt is equipped with a vacuum device to prevent the bottles from tipping over on the feed belt. Switch on the vacuum pump, if required.

Switch the leak detector on and off with key "**K1 Start/Stop“** on the control panel.
The leak test can be switched on and off with key **"K2 Leak test ON/OFF"**.
If **"Leak test OFF"** is selected, only the conveyer belt runs. (pass-through mode)
It is only possible to change the function **"Leak test ON/OFF“** with **key "K2 Leak test ON/OFF"**
when the system is stopped (**"K1 Stop“**).
The **reference leak** can be switched on and off with key **"K3 Reference leak ON/OFF". Messages** can be displayed directly by pressing key **"K4 Messages"**.

Further details on using the leak detector are given in the operating instructions for the leak detector.

3. Care and Maintenance

- The condensate should be drained at the maintenance unit on the side of the switch cabinet regularly depending on the quantity of condensate in the compressed air network, however at least once a month.

- The filter in the maintenance unit should be checked for clogging once a month.

4. Safety Precautions

- Hazard from moving machine parts
- Danger of being pulled into running conveyer belt
- Do not wear bracelets. Wear tight-fitting clothing
- Danger of being cut on blade
- Danger of being burned on blade and blade arm
- Never reach into the operating and testing are when the machine is switched on
- Always ensure that the machine is switched off and secured before performing any type of maintenance or repair work
- Danger from components under pneumatic pressure
- Leakage or detaching air hoses
- Perform maintenance and repair work only with compressed air line closed